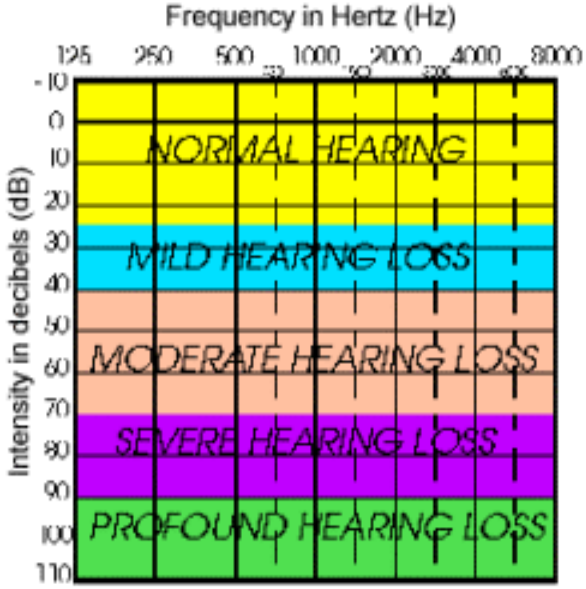
DEGREE OF HEARING AND EFFECTS



The normal range of hearing for children is between -10 dB to +15 or 25dB, depending on your source. This range, then, is considered, "normal hearing". A loss of 15dB to 25 dB is sometimes called a **"minimal" loss**. With this type of loss, students may miss up to 10% of speech if the teacher is more than three feet away, and when the classroom is noisy.

A loss of 26 dB to 40 dB is considered a **"mild loss"**. The child is likely to understand most speech at close distances, but may miss the highest frequency sounds (like /f/, /th/, /s/), which are also the quietest. In a noisy environment such as a classroom, the child may misunderstand directions, and may be thought to be "not paying attention". Children with mild hearing losses do not realize that they are not hearing well. The learning environment may be stressful, as the child must try harder to listen. A loss of 41 dB to 55 dB is considered a **"moderate" loss**. With this degree of loss, parents and teachers begin to realize that hearing may be a problem. Face-to-face, conversational speech will be understood at three to five feet, if new vocabulary is not used. Without amplification, the amount of speech missed can be 50% to 70% with a 40 dB loss. With a 50 dB loss, 80% to 90% of speech can be missed. Prognosis for normal speech and language development for a child with a moderate loss is excellent with early identification and use of good hearing aids or an FM system (OTICON & ADA, 1998).

A loss of 56 dB to 70 dB is considered a a **moderate to severe,** or **moderately severe hearing loss.** Conversation will not be understandable at six feet without hearing aids and/or visual cues. If undetected or unaided, language skills will be delayed, with reduced speech intelligibility and poor tonal quality. Social and emotional domains will be effected. The prognosis for speech and language development and auditory skills in considered to be very good with early identification, effective intervention (Yoshinago-Itano) and with advanced sound-processing hearing aids and FM wireless systems.

A loss of 71 dB to 90 dB is considered a **"severe" hearing loss**. Without amplification, the child *may* hear loud voices if they are about one foot from the ear, but not necessarily understand the speech. When amplified optimally, these children should be able to identify loud sounds in their environment, and detect most speech sounds (note: detect, not necessarily discriminate, because the more severe the sensory loss, the more distortion there is). The child will not learn information "incidentally", by casually

overhearing it, and will need to be taught everything that other children learn without effort.

A loss of 91 dB or more is called a **"profound" hearing loss**. Without amplification, the child is aware of vibrations, and speech is unintelligible. With amplification, a child may detect speech in the environment. The more profound the hearing loss, the more profound the distortion. Children with profound hearing losses are often considered good candidates for cochlear implants, after a suitable period of wearing hearing aids. Otherwise, a visual method of acquiring language and communicating may be chosen.